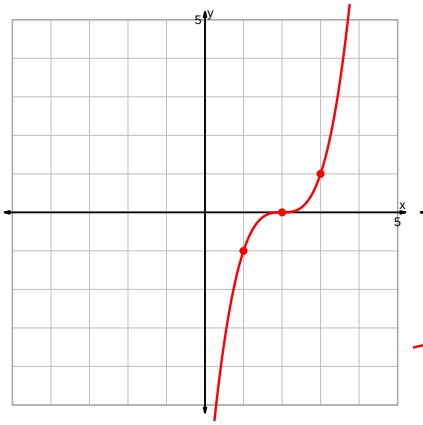
NAME: DATE:

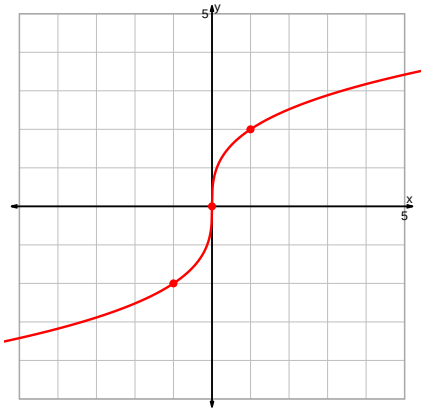
Unit-2 Reduced Mastery Assessment (version 309)

Question 1 (20 points)

Graph the equations accurately. For each integer-integer point on the parent, indicate the corresponding point precisely. Also, with dashed lines, indicate any asymptotes.

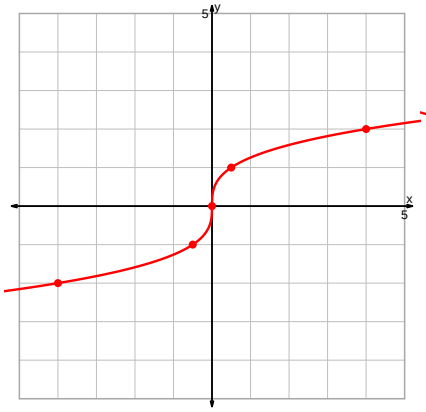
$y = (x-2)^3$

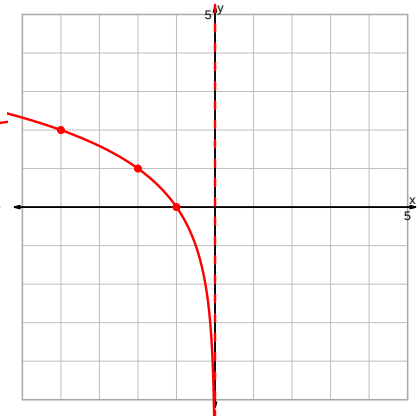




$y = 2 \cdot \sqrt[3]{x}$

$y = \sqrt[3]{2x}$

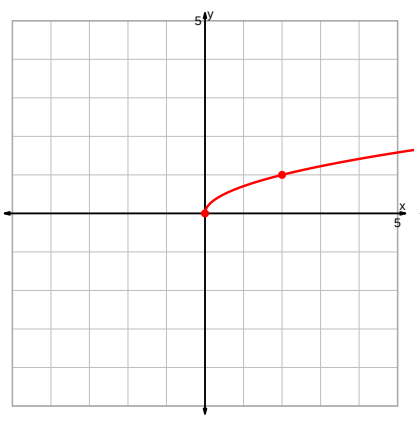


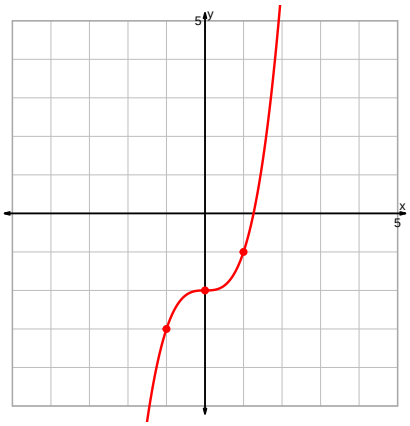


$y = \log_2(-x)$

Question 2 continued. . .

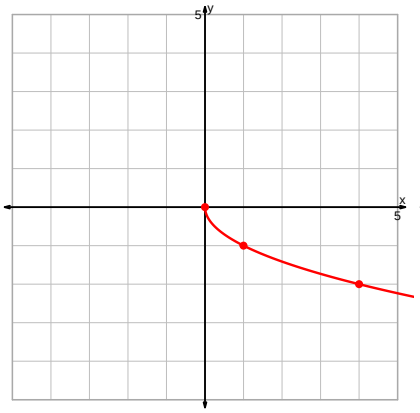
$y = \sqrt{\frac{x}{2}}$

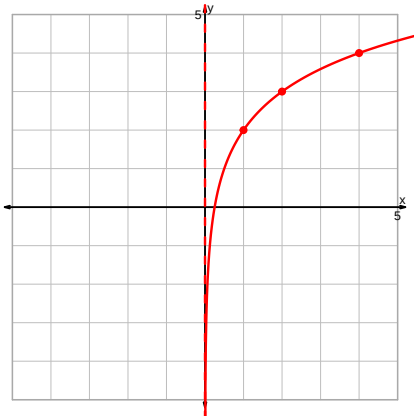




$y = x^3 - 2$

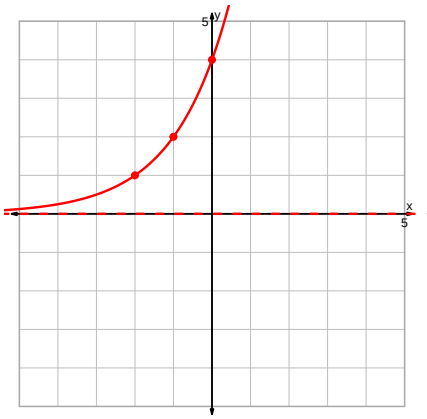
$y = -\sqrt{x}$

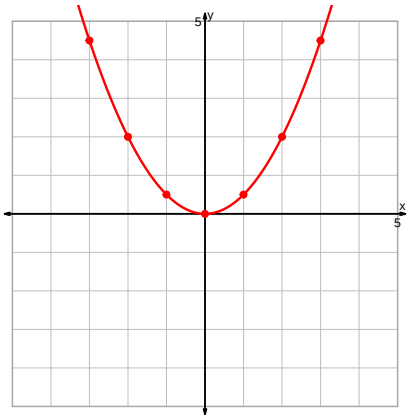




$y = \log_2(x) + 2$

$y = 2^{x+2}$

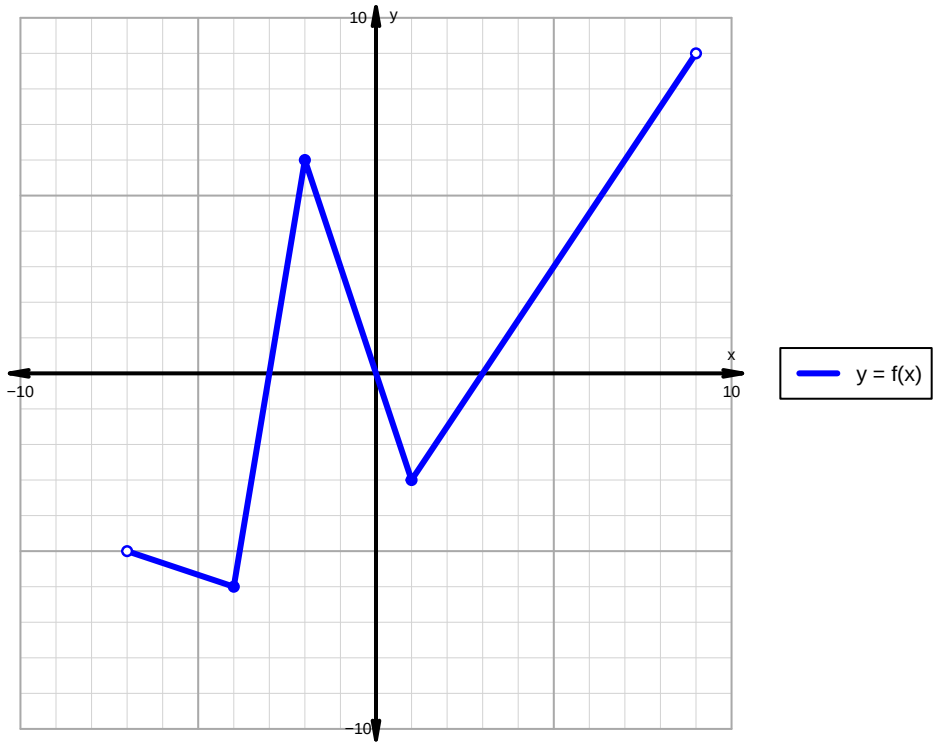




$y = \frac{x^2}{2}$

Question 2 (20 points)

A function is graphed below.



Indicate the following intervals using interval notation.

Feature	Where
Positive	$(-3, 0) \cup (3, 9)$
Negative	$(-7, -3) \cup (0, 3)$
Increasing	$(-4, -2) \cup (1, 9)$
Decreasing	$(-7, -4) \cup (-2, 1)$
Domain	$(-7, 9)$
Range	$(-6, 9)$